

## BaseStation 3200™

Baseline's BaseStation 3200 is an advanced smart controller that is ideal for everything from high-end residential properties to large commercial projects. The comprehensive features of the BaseStation 3200 include patented two-wire technology and conventional wire and retrofit solutions, advanced soil moisture sensor-based smart watering, weather-based watering, advanced flow management options, and flexible central control communication options.

### Display Features

- High contrast 3.5 inch TFT LCD screen
- Screen resolution is 320x240 at 65,536 colors
- Screen brightness of 200 lumens for easy viewing in direct sunlight

### Smart Watering Modes

In addition to time-based watering, the BaseStation 3200 also operates in the following smart watering modes:

- **Soil Moisture Sensor-Based Watering**

If you have a Baseline soil moisture sensor (biSensor™) installed in your landscaping and connected to your BaseStation 3200 irrigation controller, you can program the controller to water based on the moisture levels in the soil.

- **Weather-Based Watering**

When operated in conjunction with BaseManager™ Plus\* and WeatherAccess™, the BaseStation 3200 irrigation controller meets the EPA WaterSense program's water-efficiency and performance criteria.

With the BaseStation 3200, you can combine Baseline's soil moisture sensor-based smart watering technology with the industry's best practices for weather-based irrigation.

### Operating Features

- Supports up to 200 zones in any combination of two-wire and conventional wire
- Supports up to 99 separate programs with overlapping and stackable run times
- Supports up to 8 independent mainlines for control and management of separate water delivery systems
- Supports independent operation of each mainline
- Supports up to 25 biSensor soil moisture sensors
- Supports up to 8 flow sensors or meters, which manage and monitor flow across a site as independent or connected hydraulic systems organized into mainline groupings
- Supports up to 8 separate normally closed or normally open event devices. An event switch can be used to start, pause, or stop a program.
- Supports up to 8 normally open and/or normally closed master valves and/or pump starts for the entire system
- Supports up to 8 temperature sensors, which monitor and control program operation from temperature thresholds – operations include start, pause, or stop a program based on high or low temperature thresholds
- Supports any zone being assigned to, and fully configured, on one or more programs
- Supports a maximum of 252 addressed devices

## Operating Features, continued

- Concurrently operates up to 15 typical solenoids over two-wire or up to 2 typical solenoids over conventional wire per 12-station Powered biCoder plus 2 additional solenoids using the VE00001 and VE00002 ports
- Supports program prioritization and progression to allow control of which landscape areas get watered first, and/or to prioritize water rations during restricted water allocations
- Supports water source prioritization and intelligent secondary water source management to control which water sources are used first
- Supports empty and full indicators from moisture sensors and switches to optimize management of cisterns, ponds, rainwater catchment and other water storage systems
- Supports a settable wait time after an empty condition is met
- Supports per-program prioritized daily water rationing across multiple water sources
- Supports Intelligent Soak Cycles™ to prioritize cycles for zones that have already started to water over zones that have not started
- Automatically stacks overlapping programs. The system can run any number of programs concurrently if permitted by the concurrent zone settings.
- Learns the actual flow for each zone when one or more flow meters are configured in the system
- Executes high-flow shutdowns based on total system flow or per flow meter by mainline
- Executes low-flow shutdowns based on total system flow or per flow meter by mainline
- Intelligently schedules watering based on available flow to maximize concurrent valve operation and minimize total water time by mainline
- Displays real-time flow updated every 15 seconds when watering (Note: Older flow devices will read flow every 60 seconds)
- Runs a diagnostic test weekly on normally open master valves to help prevent a normally open master valve from "sticking" open
- Detects and repairs all address conflicts for devices that are connected to the two-wire from the controller
- Supports full two-way communication with all devices, monitors two-wire voltage and communication integrity, solenoid voltages, current, and status (open/short/OK)
- Search for and identify all devices connected to the two-wire and list them according to device

## Programmable Features

- Program up to 8 start times per program in 5-minute increments
- Program the run times for zones from 1 minute to 23 hours 59 minutes
- Program the day intervals in even days, odd days, or odd days excluding the 31st, programmable day interval
- Create a custom 7-day calendar
- Create a historical calendar with customizable half-months intervals
- Program unique soak and cycle times (Intelligent Soak Cycles™) for each zone or scheduling group. Cycle times and Soak times can be programmed between 0 minutes and 23 hours 59 minutes.
- Specify hours during each day of the week when water can or cannot be applied (Water Windows) in 1-hour increments for each 24-hour period
- Assign advanced irrigation modes (such as timed, primary, soil moisture based, or linked) to each zone
- Manually enter a design flow for each zone, with or without an installed flow meter
- Manually or automatically configure soil moisture thresholds and make irrigation decisions based on those thresholds
- Schedule soil moisture sensor calibration once, once each month, or never

## Programmable Features, continued

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- Adjust seasonal water budget from 25% to 200% by program
- Schedule 8 controller-wide event dates plus 8 event dates per program during which watering is disabled
- Manually operate one zone, multiple zones, or all zones of a program with programmable concurrent zones and run times
- Manually start or stop a program
- Address two-wire decoders (biCoders) from the controller by serial number by assigning each zone address a device serial number
- Re-address any two-wire decoder (biCoder) from the controller by re-assigning the device's serial number to a new zone address
- Assign any station or terminal number on a multi-station biCoder from the controller to any zone address in any order
- Back up and restore all programming and historical data with any USB flash drive
- Establish 3 levels of 4-digit PIN password protection: operator, programmer, and administrator.
- Stores all program and history information in non-volatile memory
- Configure pipe-stabilization time for flow management

## Messages and Alerts

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- Provides real-time soil moisture measurements and watering feedback to the user
- Includes integrated tools and software that self-diagnose problems and generate alerts and messages, and then displays the messages on the screen
- Displays an on-screen, historical-run-time chart that includes the time watered for last 6 days by program
- Displays on-screen a historical water used chart that includes the actual water used for the last 6 days by flow meter
- Displays a 6-day scalable soil moisture history graph with integrated run-time bar chart
- Displays all pause and stop conditions in message screens that are accessible from the main screen. The system displays one message for each condition, and the user can clear each message.
- Displays high flow alerts, low flow alerts, pause messages and conditions, and rain delays, wire faults, as well as other operating conditions

## Central Control and Remote Control

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- Connect the BaseStation 3200 to BaseManager™ and LiveView™ when configured with an approved communication module. Communication options include built-in Ethernet, Wi-Fi, cellular modem, Ethernet radio, and Ethernet long haul communication options.
  - The built-in Ethernet jack is 10/100 Base-TX and accepts a standard RJ45 connector. The jack is compliant with CAT5, CAT5e, and CAT6 Ethernet cables.
- Manually program and operate all configured zones from BaseManager central control software
- Receive email and text message alerts when connected to BaseManager central control software
- Perform manual operations remotely with Mobile Access™ when connected to BaseManager central control software

## WeatherAccess™

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WeatherAccess™ applies real-time weather data from a weather station in your area (available in Weather Underground's weather station network), and configurable zone properties to a standardized evapotranspiration (ET) equation. This calculation estimates the loss of moisture from the root zone, and then the BaseStation 3200 uses the calculated value to adjust the runtime in order to apply just enough water to replace that lost moisture.

## Electrical Specifications

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### >Transformer Input

- Requires 120 VAC, 50 Hz to 60 Hz and a minimum of a 5 amp breaker
- Requires a certified electrician for hard-wire installation

### >Power Output

- Station Output: 30 VAC RMS over two-wire
- Supports up to 1.45 amp output
- UL Listed
- The controller powers down the two-wire after one minute of idle time
- Drive current to a decoder is 100 to 250 milliamps (depending on the solenoid)
- Supports up to 110 device loads on a two-wire path
  - 1, 2, and 4 station biCoders = 1/2 load
  - 12 to 24 station Powered biCoder = 2 loads
  - Soil Moisture Sensor = 1 load
  - Flow biCoder = 3 loads

### >Solenoid Specification

- Requires a typical solenoid with approximately 400 milliamps of inrush current and approximately 200 milliamps holding current

### >Surge

- 10 levels of surge protection
- Up to 5 levels of surge protection built into the controller boards
- Minimum surge response time of 1 picosecond

## How to Specify

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### Start with the controller:

BL-3200

### Designate the enclosure with one of the following codes:

'-X', '-XS', '-P'

### Add a communication option:

Ethernet	(Included)
Wi-Fi	'-WF'
Cellular	'-CM'
Cellular Gateway**	'-CMGW'
Ethernet Radio	'-ER'

\*\* (Allows multiple controllers to share a single cellular connection.)

### Add a BL-CMDR RF remote control receiver:

'-T'

### If needed, add conventional wire options

12 Zones	'-R12'
24 Zones	'-R24'
36 Zones	'-R36'
48 Zones	'-R48'

### Examples:

BL-3200X-R24

BL-3200X-WL

BL-3200P-R48-CM

**Note:** Communication modules and BL-CMDR may also be purchased separately

## Enclosure Options

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### "X" Cabinet—Wall Mount Enclosure

- Dimensions: 15.50" x 12.38" x 6.40"
- 16 Gauge, powder-coated

### "XS" Cabinet—Wall Mount Enclosure

- Dimensions: 15.50" x 12.38" x 6.40"
- 16 Gauge, 304-grade stainless steel

### "P" Pedestal Enclosure

- Dimensions: 17.38" x 36.25" x 12.63"
- 16 Gauge, 304-grade stainless steel

## Device Options

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### Compatible with all Baseline two-wire devices, including:

BL-5200R powered retrofit biCoders

BL-5201, BL-5202, and BL-5204 valve biCoders

BL-5201PR Pump Start/Relay biCoders

BL-5201DC and BL-5202DC DC-latching valve biCoders

BL-5303 Air Temperature Sensors

BL-5308 and BL-5309 Flow biCoders

BL-PFS Flow Sensors and BL-BHM Hydrometers

BL-5401 and BL-5402 Event biCoders

BL-5315B biSensor Soil Moisture Sensors

BL-LA01 Lightning/Surge Arrestors